



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,679	02/27/2002	Kenneth Grefve	66306-022	9436
25269	7590	11/23/2004	EXAMINER	
DYKEMA GOSSETT PLLC FRANKLIN SQUARE, THIRD FLOOR WEST 1300 I STREET, NW WASHINGTON, DC 20005			TSAI, CAROL S W	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/083,679	GREFVE ET AL.	
	Examiner	Art Unit	
	Carol S Tsai	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 August 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 1-12 and 21-26 is/are allowed.
- 6) Claim(s) 16-19 is/are rejected.
- 7) Claim(s) 13-15, 20, and 27 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/22/2002.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Oath/Declaration

1. A new oath or declaration is required because it is not included in the application. The wording of an oath or declaration cannot be amended. If the wording is not correct or if all of the required affirmations have not been made or if it has not been properly subscribed to, a new oath or declaration is required. The new oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02.

Claim Objections

2. Claims 13-15 and 27 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 13, 14, 15, and 27 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent No. 6,480,802 to Flormann.

With respect to claims 16 and 17, Flormann discloses a flatness determination signal for improving the signal to-noise ratio in a system for measuring flatness of a strip of rolled material and derived from at least one measurement signal, characterized in that each separate measurement signal is generated by a corresponding measuring device of all measuring devices belonging to at least one of all measurement zones of a measuring roll and comprises one or more measurable values for calculating at least one of following quantities or vectors: strip tension vector, wrap angel, distributed force vector, force vector, flatness vector and/or a corresponding quantity flatness vector (see col. 2, lines 39-59; col. 4, lines 13-26; and col. 7, line 19 to col. 8, line 12).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2857

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flormann in view of U. S. Patent No. 6,164,104 to Noe et al.

As noted above, with respect to claims 18 and 19, Flormann discloses the claimed invention, except for a force component signal.

Noe et al. teach for a force component signal (see col. 3, lines 34-64 and col. 4, lines 53-60).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Flormann's method to include a force component signal, as taught by Noe et al., in order that the braking force can be applied at an angle to the strip travel direction as long as its horizontal component B is approximately equal and opposite to the component F_z .

Allowable Subject Matter

7. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 1-12 and 21-26 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

U. S. Patent No. 6,480,802 to Flormann in view of U. S. Patent No. 6,164,104 to Noe et

al. are references closest to the claimed invention. Flormann in combination with Noe et al. disclose a method for improving the signal-to-noise ratio in a system for measuring flatness of a

strip of rolled material, said system comprising at least one signal processor for determining said flatness and a measuring roll, having a number of measuring devices for force/pressure registration, each said device generating a measurement output signals depending on the contact between the strip and the measuring roll, wherein each measurement signal comprises a force component signal and a noise signal component, said method comprising the step of: generating measurement output signals by means of each measuring device depending on the contact between the strip and the measuring roll; characterized in that, said method comprises the following steps: determining a time length, based on the measurement output signals; generating a time slot having the determined time length. However, Flormann in combination with Noe et al. do not teach synchronizing said time slot to the appearance of a force component on an input of at least one quantity processor of said signal processor; controlling at least one quantity processor to be open for registration of an incoming force component signal during said time slot and be closed until the next successive time slot appears; and including all of the other limitations in the respective independent claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sendzimir et al. disclose an improved shapemeter to measure the flatness of metal strip under tension as the strip passes over a shapemeter roll, the shapemeter including a stationary shaft with a set of bearings that allow the strip to easily pass over the shapemeter roll.

Durand-Texte et al. disclose apparatus for measuring the flatness of a strip in movement.

Sendzimir et al. disclose a shapemeter for measuring the flatness of a tensioned metal strip having a plurality of coaxially aligned measuring rings, with each measuring ring being rotatably supported on the outer circumference by an associated force sensor.

Hong et al. disclose an apparatus for measuring flatness of a hot rolled strip based on a contact load of the hot rolled strip to split rolls of a looper in the hot rolling process.

Adolfsson et al. disclose a flatness measuring device for rolled strip according to the invention comprising a measuring roller over which the rolled strip passes.

Morel discloses a device for measuring flatness defects in a strip, e.g., rolled metal sheets, by the use of sensors.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for TC 2800 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (571) 272-1585 or (571) 272-2800.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which

Art Unit: 2857

require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.



Carol S. W. Tsai
Patent Examiner
Art Unit 2857

11/16/04